CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

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WASTE DISCHARGE REQUIREMENTS FOR JOLON ROAD CLASS III LANDFILL MONTEREY COUNTY, CALIFORNIA

ORDER NO. 95-13

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board), finds that:

1. James M. Carroll, Sharon Carroll, James Ratto and Dianna Ratto (hereafter "Owner") own the parcel of land of which the County of Monterey Department of Public Works leases 496-acres. The County of Monterey Department of Public Works is hereafter referred as "Discharger". The Jolon Road Landfill Company (hereafter "Operator") operates Jolon Road Class III Landfill (hereafter "Landfill"). The County of Monterey, the Owner, and the Operator are held responsible for complying with this Order. The current lease terminates June 3, 2004.

2. The approximately 35.8-acre Landfill is located 3 1/2 miles southwest of King City and 0.5 mile west of Jolon Road in the eastern foothills of the Santa Lucia Range as shown on **Attachment "A"**. The site is located in Section 30, Township 20 South, Range 8 East. The site is within Assessor's Parcel Number 420-081-16.

3. This Waste Discharge Requirements (Order) is being revised/updated to incorporate criteria currently applicable to solid waste disposal sites, particularly:

   a. criteria established in California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15), including Article 5, pertaining to landfill water quality monitoring and response programs, as amended July 1, 1991; and

   b. criteria established in 40 CFR Parts 257 and 258 Solid Waste Facility Disposal Criteria, Final Rule (Known as "Subtitle D"), as promulgated October 9, 1991.

4. This Order replaces Order No. 87-152, as adopted on December 4, 1987. Order No. 87-152 regulated all waste discharges to the Landfill. Additionally, this Order is intended to cover all items of Order No. 93-84 adopted by the Board on October 8, 1993. Implementation of applicable revised Article 5 monitoring requirements and various other pertinent landfill changes, including compliance with other State and Federal landfill regulations, will bring the Landfill into compliance with current landfill requirements.

Physical Description: Geology

5. Land use within 1000 feet of the Landfill is predominately agriculture and grazing. Oil production in the immediate area has ceased. The area is largely undeveloped and is vegetated primarily with grass, sage, and scrub oak.

6. The site lies at the base of an east-west tending canyon, bounded by the north, west and south by moderate to steep slopes. The ground surface elevations at the Landfill range from approximately 580 to about 460 feet above Mean Sea Level (MSL) at the eastern edge.

7. The Discharger's data demonstrates that the natural geologic materials underlying the Landfill unit(s) cannot ensure that degradation of beneficial ground water beneath or adjacent to the Landfill will not occur.

8. The site is underlain by a mantle of colluvial and older alluvial sediments and sedimentary bedrock units; primarily the Monterey, Pancho Rico, and Paso Robles Formations. Silty sand and sandy silt colluvium generally underlie the site to depths of approximately 15 to 20 feet below the original, pre-developed ground surface and reportedly reach a maximum depth of about 30 feet. Alluvium filled channels having thicknesses of up to 40 feet reportedly exist in the southeastern and northern portion of the Landfill parcel. Alluvium and colluvium underlie the Landfill up to a depth of approximately 50 feet.

   The Monterey Formation underlying the colluvial and alluvial units is reportedly thin bedded and has massive to moderate fractures with some local areas of intense fracturing. It is more than 2,300 feet thick beneath the site. Slug tests performed in wells perforated in the Monterey Formation yield hydraulic conductivity values ranging from 2.6×10^{-6} to 2.5×10^{-7} cm/sec. Vertical hydraulic conductivity ranged from 1.4×10^{-7} to 2.1×10^{-8} cm/sec.

9. No faults have been observed or recorded at the site. The Rinconada Fault, the closest mapped fault, is located over two and one half miles west of the site.

Water Resources

10. The Landfill lies in the Salinas Valley Ground Water Basin (Basin). The Basin is bound by the Gabilan Range to the northeast and the Santa Lucia and Sierra de Salinas Ranges to the southwest. The Basin is essentially linear in shape and tends northwest extending from San Ardo to the Pacific Ocean at Monterey Bay. The average annual precipitation recorded between 1951 and 1980 at the King City station is 11.25 inches, 92% of which normally occurs between November and April. According to the Department of Water Resources, the recorded maximum annual precipitation of 23.81 inches occurred in 1941 at the King City Station. The 24-hour duration, 100 year storm reached 3.79 inches. The Landfill is located above, and not within, the 100-year floodplain of the Quinado Creek.

11. The first encountered ground water zone underlying the Landfill occurs in alluvium, colluvium and in the unweathered and weathered Monterey Formation between elevations of 435 feet above MSL and 536 above MSL. The ground water flows east-northeast with a gradient of 0.051 ft/ft, from the shale and alluvium at the site into the alluvium of the Salinas River floodplain. Ground water velocity has a minimum value of 0.08 ft/day (recorded in March 1992) and a maximum value of 0.96 ft/day (in February 1991).

    In the central and northern portions of the site ground water is encountered within perched zones of the Monterey Formation and alluvium channel. The first water-bearing units occur at depths of approximately 6 to 11 feet below the Landfill.

    A spring 150 feet east of the site boundary flows from the contact of the alluvium and underlying bedrock. Surface water flow at the site is limited to occasional overland flow during and/or following precipitation events. There is no perennial surface water at the site. Surface water runoff generally flows eastward towards the Salinas River.

12. The existing detection monitoring program for the Landfill consists of three ground water monitoring points (Wells JR-J1, JR-J2, and JR-J3). Two additional ground water monitoring points (Wells J-10 and JR-J4) are proposed to be incorporated into the current detection ground water monitoring program. Installed well JR-J2 and JR-J3 and proposed well JR-J4 will monitor ground water conditions in the inferred downgradient flow direction from the Landfill. Installed well JR-J1 and proposed well J-10 will monitor the inferred upgradient ground water flow direction to provide information on background chemistry. Well JR-J1 appears to be hydraulically connected to wells JR-J2 and JR-J3. JR-J3 is located approximately 150 feet northeast of the permitted Landfill boundary. The well is 40.3 feet deep, depth to ground water is

approximately 15 feet, and ground water elevation is approximately 437 feet above MSL. Well JR-J3 is screened in both the colluvium and Pancho Rico Formation. JR-J2 is located southeast of the Landfill, just inside the boundary of the permitted area. The well is 40.3 feet deep, depth to ground water is approximately six feet and the ground water elevation is 453 feet MSL. The well is screened in the colluvium. It is assumed to be monitoring the same water exiting at the spring. JR-J1 is located approximately 500 feet west of the center of the permitted site. The well is approximately 89.9 feet deep, depth to ground water is 71 feet and the ground water elevation is 537 feet above MSL. Well JR-J1 is screened in the upper, weathered portion of the Monterey Formation. Well J-10 reportedly has a total depth of about 146 feet and is perforated in the Monterey Formation (similar to Well JR-J1) between depths of about 82 and 101 feet below the ground surface. Well JR-J4 is approximately 525 feet east of the southeastern corner of the Landfill boundary.

13. Six additional wells (Wells J-5 through J-7, and J-10 through J-12) were installed on behalf of the Landfill Owners, but are not proposed as monitoring points for the Landfill. Wells J-5, J-6, and J-12 are located within the boundaries of the currently permitted 35.8-acre parcel, while the remaining three monitoring wells (J-7, J-10, and J-11) are located outside the current parcel. Due to changes made in Module 4 (Liner Installation Report, July 1994) will require the decommissioning of well J-6.

    Two private water wells are located near the Landfill. The Solari Well lies about 700 feet northeast of the northeast corner of the Landfill boundary. It provides water for livestock watering and was previously reported to supply water at a rate of about 5 gallons per minute. The second well is located about 150 feet northeast of the northeast corner of the Landfill parcel. It appears to be used primarily for on-site water supply.

    There are two wells used for testing by Monterey County Water Resources Agency for regional water quality. These wells are identified as State Well Numbers T20S/R8E 29F1 and T20S/R8E 29P1. These wells are located about 3500 feet east of the site.

14. No volatile organic compounds, semi-volatile compounds, organochlorine pesticides, or polychlorinated biphenyls were detected in any of the ground water samples. Background concentration levels show ground water to be of poor quality. Historically, the spring and well water have consistently exceeded the secondary drinking water standards for EC and TDS. Water data for the spring, located down gradient of the Landfill, indicates that the groundwater beneath the site is "highly mineralized". Concentrations of manganese, iron and total Kjeldahl nitrogen in ground water samples upgradient exceed Maximum Contaminant Levels (MCLs). Well JR-J3 data indicate elevated concentrations of selenium. Chloride concentrations in all three wells exceed State Recommended Secondary Drinking Water MCLs.

15. Marine shales of the Coast Range Province are known to be sources of naturally elevated concentrations of cadmium, selenium and sulfur. Therefore, the high levels of cadmium, selenium and the presence of carbon disulfide (found in two samples) are attributed to the Monterey Formation. Nitrate concentrations are higher downgradient of the Landfill. Because there has been no detection of volatile organic compounds along with the nitrate, the occurrence of nitrate is assumed to be a result of cattle grazing and farming activities in the region.

Beneficial Uses

16. The Water Quality Control Plan, Central Coast Basin (Basin Plan), was adopted by the Board on November 17, 1989, and approved by the State Water Resources Control Board on August 16, 1990. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters. This Order implements the water quality objectives stated in that Plan.

17. Present and anticipated beneficial uses of ground water downgradient of the Landfill include:

    a) Municipal and domestic supply;
    b) Agricultural supply; and
    c) Industrial supply.

18. Present and anticipated beneficial uses of the Salinas River in the vicinity of the Landfill include:

    a) Municipal and agricultural supply;
    b) Industrial supply;
    c) Groundwater recharge;
    d) Contact water recreation;
    e) Non-contact water recreation;
    f) Wildlife habitat;
    g) Warm fresh water habitat; and,
    h) Fish migration.

Landfill Specifics.

19. The Landfill serves the waste disposal needs for King City, Greenfield, San Lucas, San Ardo, Bradley, Fort Hunter-Liggett and surrounding communities, and has a total capacity of approximately 839,800 cubic yards. The Landfill is constructed by the cut and fill method. Soil excavated immediately west of the current Landfill area is used to provide daily cover. Disposal activities are phased, with excavations first prepared, and fill then placed in the excavated area in layers which average approximately 15 feet in thickness. In 1988, the Landfill reported receiving an average of approximately 50 tons of refuse per day, 256 days per year, which corresponds to approximately 21,380 compacted cubic yards (about 12,830 tons) per year. Currently, the average waste disposal rate is 80 tons per day with an annual total of approximately 18,500 tons. The Landfill is expected to reach final capacity in 2009.

20. The Landfill is sectioned into Modules 1-4. Module 1, located in the north eastern corner of the permitted area, is 3.9-acres (18,900 cubic yard capacity) is complete. Module 2, (2.7-acre originally + 75-foot lateral extension), is also complete. Modules 1 and 2 are not underlain by a liner and leachate collection and removal system (LCRS). To meet Subtitle D and Blanket Order 93-84 requirements, it is necessary to line and install a LCRS in the areas designated as Module 3 and 4 before waste disposal in those areas can begin. Module 4 will be lined and filled prior to Module 3. A portion of Module 4 (Module 4A) has been equipped with a composite liner system and filling operations commenced during the month of December, 1994. Module 4A, depicted on Attachment "B" is approximately 50,000 ft^2. Modules 1 and 2 will be covered with an approved intermediate cover until all modules are completed. Once all modules are completed, an approved final cover will be placed over all four modules as a whole.

21. The Discharger has operated a limited nonhazardous liquid waste land treatment unit (approximately one-acre) since 1978. The land treatment unit area is located 300 feet west of Module 4, as shown on Attachment "B". The land treatment unit area only accepts septage, grease trap pumpings and other similar nonhazardous liquid wastes. Records indicate the volume of liquid wastes accepted for disposal is up to 33,916 gallons per month (September 1994) over the one-acre area. The treatment area is not equipped with a liner system and is not monitored.

22. Chapter 15 requires Dischargers who propose to treat or dispose of liquid wastes in land treatment units to operate a test plot for a sufficient period to demonstrate that a land treatment unit is feasible and in accordance with Chapter 15 criteria. This Order requires the Discharger to operate the one-acre land treatment unit as a test plot during a six-month period to continue accepting and discharging the liquid wastes described in Finding No. 21, above.

23. Site specific operations that may, but are not expected to, influence ground water quality include the following:

    a. Infectious waste and dead animals are accepted at the Landfill when properly contained in plastic bags approved by the Department of Health Services (DHS). These bags are immediately placed in the working face and covered with soil when received at the site.

b. Oil well Pennant Madero was abandoned according to requirements of the Division of Oil and Gas. It is located along the proposed western boundary of Module 4. The well has a total depth of 2897 feet, with a cement plug from 165 feet to surface. It reportedly never produced oil and does not appear to be a vehicle for contaminants.

Statements of Regulation

24. Due to revisions of Article 5, of Chapter 15, the Discharger submitted a Nov. 17, 1992 Amendment to "Report of Waste Discharge, Board Order No. 87-152, Jolon Road Solid Waste Disposal Site, Monterey County, California" to update waste discharge requirements for the Landfill, including a monitoring and reporting program. It includes proposals for: 1) a ground water, surface and vadose zone water quality detection monitoring program to comply with general requirements and performance standards contained in Article 5; and 2) the establishment of a financial assurance instrument to cover all expenses related to future corrective action costs. However, the proposed water quality detection monitoring program does not satisfy Subtitle D and Article 5 of Chapter 15 monitoring requirements. This Order includes additional requirements with respect to site assessment (hydrogeologic investigation) and development, and implementation of adequate water quality monitoring programs.

25. On October 9, 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations pertaining to solid waste disposal facilities known as 40 CFR, Parts 257 and 258 Solid Waste Disposal Facility Criteria, Final Rule (also known as Subtitle D). The Subtitle D regulations establish minimum criteria for location, design, operation, clean-up, and closure for most municipal solid waste landfills. California has received USEPA authorization (become an "Approved" State) to implement the Federal Subtitle D regulations. Subtitle D implementation/applicability is as follows:

a. municipal solid waste landfill unit(s) that stopped receiving waste before October 9, 1991 are exempt from Subtitle D;

b. municipal solid waste landfill unit(s) that received waste on or after October 9, 1991, but stopped receiving waste before October 9, 1993, must meet only the final cover requirements specified in Section 258.60(a); and

c. municipal solid waste landfill unit(s) that received waste on or after October 9, 1993 must comply with all requirements of Subtitle D.

The majority of the Subtitle D regulations for most municipal solid waste landfills became effective and self-implementing on October 9, 1993 (effective date) for municipal solid waste landfills that: (1) accept less than 100 tons per day; (2) are in a State that has submitted an application to USEPA for approval of its permit program by October 9, 1993; and (3) are not on the Superfund National Priorities List, the effective date was April 9, 1994. Ground water monitoring and corrective action requirements become effective prior to receipt of waste for new landfills (October 9, 1994 through October 9, 1996 for existing landfills and lateral expansions). Financial assurance requirements become effective April 9, 1995.

26. The Landfill meets the criteria of the California Code of Regulations, as stated in Chapter 15, for classification as a Class III Landfill suitable to receive non-hazardous solid wastes. this Order implements the prescriptive standards and performance goals of Chapter 15, as adopted by the State Water Resources Control Board on October 18, 1984, and as amended on July 1, 1991.

27. The Discharger operates the facility under Solid Waste Facility Permit 27-AA-006, issued by the California Integrated Waste Management Board (CIWMB).

28. Wastes containing greater than one percent (>1%) friable asbestos are classified as hazardous under California Code of Regulations, Title 22. Since such wastes do not pose a threat to water quality, Section 25143.7 of the Health and Safety Code permits its disposal in permitted landfills, providing waste discharge requirements

specifically allow the discharge and the wastes are handled and disposed in accordance with other applicable State and Federal statutes and regulations.

29. Discharge of waste is a privilege, not a right, and authorization to discharge waste is conditioned upon the discharge complying with provisions of Division 7 of the California Water Code and with any more stringent limitations necessary to implement the Basin Plan, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.

30. This Order contains prohibitions, discharge specifications, water quality protection standards, and provisions intended to protect the environment by mitigating or avoiding impacts of the project on water quality. This Order is for an existing facility and therefore is exempt from provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.

Board Dates

31. On November 23, 1994, the Board notified the Dischargers and interested agencies and persons of its intention to update the waste discharge requirements for the discharge and has provided them with a copy of the proposed Order and an opportunity to submit written views and comments.

32. After considering all comments pertaining to this discharge during a public hearing on February 10, 1995, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED pursuant to authority in Section 13263 of the California Water Code, the Discharger, its agents, successors, and assigns may discharge wastes at the Jolon Road Class III Landfill, providing compliance is maintained with the following:

(Throughout this Order, footnotes are listed to indicate the source of requirements specified. Footnotes are as follows:

a=CCR, Title 23, Chapter 15 (Chapter 15)
b=Basin Plan
c=CFR, Part 257 and 258 (Subtitle D)
d=California Water Code

Requirements without footnotes are based on professional judgement.)

A. DISCHARGE PROHIBITIONS

General Prohibitions

1. Discharge of municipal solid wastes to areas outside the "Designated Disposal Landfill Area", as specified in the "Report of Disposal Site Information and Engineering Review, Jolon Road Landfill, Monterey County, California (June, 1989)", prepared by EMCON Associates, and shown in **Attachment "B"**, is prohibited.

2. Discharge of municipal solid wastes within the "Designated Disposal Landfill Area", where refuse placement has not occurred, is prohibited; unless a composite liner system and LCRS, as described in **Specification B.33, and B.34,** is provided.[c]

3. Discharge of "hazardous waste", except for waste that is hazardous due only to its asbestos content, is prohibited. For the purposes of this Order, the term "hazardous waste" is defined in Chapter 15.[a]

4. Discharge of "designated waste" is prohibited, except when the Discharger demonstrates to the Executive Officer's satisfaction that waste constituents present a lower risk of water quality degradation than indicated by this classification. For the purpose of this Order, the term "designated waste" is as defined in Chapter 15.[a]

5. Discharge of "liquid wastes" or "semi-solid wastes" (i.e., wastes containing less than 50 percent solids by weight), except for; leachate and gas condensate (allowed by **Discharge Specification B.8**), and grease trap pumpings and other similar nonhazardous liquid wastes, which may only be discharged to the liquid waste land

treatment unit area depicted on **Attachment "B"**, is prohibited. Exemptions to discharging wastes containing less than 50% solids by weight may be granted by the Executive Officer if the Discharger can demonstrate the discharge will not exceed the moisture-holding capacity of the Landfill unit(s), either initially, or as a result of waste management operations, compaction, and/or settlement.[a,c]

6. The discharge of nonhazardous grease trap pumpings and/or other similar nonhazardous liquid wastes is prohibited after June 15, 1996 unless the land treatment unit is proven feasible by June 15, 1996, and it's design, construction, operation and monitoring complies with applicable Chapter 15 criteria, as approved by the Executive Officer.

7. Discharge of grease trap pumpings and other similar nonhazardous liquid wastes to saturated ground (i.e., when moisture conditions of the land treatment unit are such that discharging additional liquid wastes will create ponding or run-off conditions), is prohibited.

8. Discharge of dewatered sewage or water treatment sludge, which contains less than 50% solids by weight to any Landfill areas, shall meet conditions specified in **Discharge Specification B.7.**[a]

9. Discharge of solid or liquid waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited. Waste must pass the paint filter test to determine if free liquids are present.[a,c]

10. Discharge of waste to ponded water from any source is prohibited.[a]

11. Ponding of liquids over solid wastes is prohibited.[a]

12. Discharge of wastes within five (5) feet of the highest anticipated elevation of underlying ground water, including the capillary fringe, is prohibited.[a]

13. Discharge of waste within 50 feet of the property line, 100 feet of surface waters, or 100 feet of domestic water supply wells is prohibited.

14. Discharge of solid or liquid waste or leachate to surface waters, drainageway(s), or ground water, is prohibited.

15. Discharge of wastes that would reduce or impair the integrity of containment structures is prohibited.[a]

16. Discharge of wastes which, if commingled with other wastes in the Landfill, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which in turn:

    a. require a higher level of containment than provided by the Landfill;

    b. are restricted hazardous wastes; or

    c. impair the integrity of containment structures,

    is prohibited.[a]

17. Discharge of waste solvents, dry cleaning fluids, paint, sludge, pesticides, phenols, brine, and acid and alkaline solutions is prohibited.[a]

18. Discharge of oils or other liquid petroleum products is prohibited.

19. Discharge of chemical and biological warfare agents is prohibited.

B. DISCHARGE SPECIFICATIONS

General Specifications

1. The Discharger shall develop and implement an Executive Officer approved monitoring and reporting program in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Landfill, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the Landfill.[a]

2. Discharge of waste shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its concentration limit in any monitored medium (i.e., soil-pore gas, soil-pore liquid, soil, or other geologic material), at any Monitoring Point assigned to Detection Monitoring pursuant to the current version of the Monitoring and Reporting Program.[a]

3. Discharge of waste, shall not cause the release of pollutants/contaminants, or waste constituents in a manner which could cause a condition of pollution, contamination or nuisance to occur, as indicated by the most appropriate statistical [or non-statistical] data analysis method and retest method listed in the **MRP, Part III.**[a,d]

4. Discharge of waste shall neither cause nor contribute to the pollution and/or contamination of State waters via the release of waste constituents in either liquid or gaseous phase.

5. Discharge of waste shall neither cause nor contribute to any surface water pollution, contamination or nuisance, including, but not limited to:

   a. floating, suspended, or deposited macroscopic particulate matter or foam;

   b. increases in bottom deposits or aquatic growth;

   c. an adverse change in temperature, turbidity, or apparent color beyond natural background levels;

   d. the creation or contribution of visible, floating, suspended, or deposited oil or other products of petroleum origin; and

   e. the introduction or increase in concentration of toxic or other pollutants/contaminants resulting in unreasonable impairment of State waters' beneficial uses.

6. Discharge of waste shall not be a source of nuisance(s). Nuisance includes, but is not limited to; odors, litter, wind blown trash, noise.

7. Discharge of dewatered sewage sludge or water treatment sludge to the Landfill unit(s) shall meet all of the following criteria:

   a. dewatered domestic sludge which is utilized beneficially as soil amendment to promote vegetation over intermediate or final cover may be allowed with written Executive Officer approval;

   b. sludge may be discharged only to Landfill unit(s) equipped with a dendritic/blanket-type leachate collection and removal system (LCRS) or acceptable equivalent immediately above the liner. However, if the sludge contains greater than 50% solid by weight, an LCRS may not be required depending on site specific conditions and upon Executive Officer approval;

   c. a daily minimum solid waste-to-sludge ratio of 5 to 1 by weight shall be maintained to ensure co-disposal will not exceed the moisture-holding capacity of the nonhazardous solid waste. The actual ratio required by the Executive Officer shall be based on site-specific conditions;

   d. primary and mixtures of primary and secondary sludge shall contain at least 20 percent solids by weight; and

   e. secondary sewage sludge or water treatment sludge shall contain at least 15 percent solids by weight.

8. Discharge of leachate or condensate to the Landfill shall[c]:

   a. be returned only to Landfill unit(s) equipped with a containment system that meets the performance standard of **Discharge Specification B.33** of this Order;

b. be returned to Landfill unit(s) that produced it;

c. consist only of matter removed from the Landfill unit(s) that produced it; and

d. shall be discharged in full compliance with this Order.

9. With written Executive Officer approval, water (including non-hazardous and non-designated leachate and gas condensate) may be utilized over all Landfill areas, including unlined Landfill areas, during disposal operations. The use of such liquids shall be limited to the amount necessary for dust control, construction (soil compaction), and vegetation establishment/irrigation purposes. The Discharger shall minimize the infiltration of rain-water and prevent infiltration of leachate or gas condensate into areas containing refuse, except as allowed by **Discharge Specification B.8.**

10. The Discharger shall prevent formation of a habitat for carriers of pathogenic microorganisms.

11. The handling and disposal of asbestos containing wastes shall be in accordance with all applicable Federal, State, and Local statutes and regulations.

12. Ash wastes may be discharged in the Landfill only when chemical analyses demonstrate, to the Executive Officer's satisfaction, that the waste is non-hazardous.[a]

13. Refuse shall be covered daily by at least six inches of cover material or, if allowed by the Local Enforcement Agency, meet Performance Standards of the California Code of Regulations, Title 14, Section 17683. Cover shall promote lateral runoff of rainfall away from the active disposal area. Upon Executive Officer approval, alternative daily cover materials may be utilized. Long-term alternatives to the daily cover requirements must satisfy the alternative daily cover procedures and be approved by the California Integrated Waste Management Board.[a]

14. All refuse material that is wind-blown outside the active disposal area shall be collected regularly and disposed in the Landfill. If wind-blown litter becomes a continuing problem, a containment barrier (screens and/or fences) shall be constructed to prevent spreading of refuse.

15. Waste shall not be discharged to a wetland, as defined in 40 CFR Section 232.2(r), or to any portion thereof, unless the Discharger successfully completes all demonstrations pursuant to 40 CFR Section 258.12(a). Such demonstration is subject to Executive Officer approval.[c]

16. The Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the Landfill until the end of the Landfill's Post-Closure Maintenance Period and during any compliance period.[a]

17. Wastes discharged in violation of this Order shall be removed and relocated.

18. The Discharger shall operate the Landfill and configure the final Landfill contours, in conformance with the most recently Executive Officer approved Master Plan and/or Operations Plan, except where the Plan(s) conflict with this Order. In the event of conflict, this Order shall govern in cases where it is most restrictive. Any changes to the Plan(s) that may affect compliance with this Order must be approved in writing by the Executive Officer.[a,d]

Wet Weather

19. By **October 1** of each year, all necessary runoff diversion and erosion prevention measures shall be implemented. All necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or Landfill flooding and to prevent surface drainage from contacting or percolating through wastes.[a]

20. **Throughout the rainy season of each year,** a minimum one (1) foot thick compacted soil cover designed and constructed to minimize percolation of precipitation through wastes, shall be maintained over all Landfill unit(s). The soil cover shall be in-place by **October 1 of each year.** The only exception to this specification is the working face. The working face shall be confined to the smallest area practicable based on the anticipated quantity of waste discharged. Based on site specific conditions, the Executive Officer may require a thicker soil cover for any portion of the Landfill's active unit(s) prior to the rainy season.

21. By **October 1 of each year,** vegetation shall be planted and maintained over all Landfill slopes within the entire Landfill area to prevent erosion. Vegetation shall be selected to require a minimum of irrigation and maintenance and shall have a rooting depth not in excess of the vegetative layer thickness. Upon Executive Officer approval, non-hazardous sludge may be utilized as a soil amendment to promote vegetation. Soil amendments and fertilizers (including wastewater sludge) used to establish vegetation shall not exceed the vegetation's agronomic rates (i.e., annual nutrient needs), unless approved by the Executive Officer.

22. All Landfill surfaces and working faces shall be graded and operated to minimize rainfall infiltration into wastes, to prevent ponding of water, and to resist erosion. Positive drainage to divert rainfall runoff from areas containing waste shall be provided.

23. Water collected in any storm water catchment basin or a site water treatment facility may be used in minimum amounts necessary for dust-control, compaction, or irrigation of cover vegetation provided none of the water infiltrates past the evapotranspiration zone.

24. Waste containment barriers shall be maintained to ensure their effectiveness.[a]

25. The Discharger shall monitor potential releases from the site related to surface water runoff by complying with all National Pollution Discharge Elimination System (NPDES) Stormwater Monitoring Program requirements.

26. Storage facilities associated with precipitation and drainage control systems shall be emptied immediately following each storm, or otherwise managed, to maintain the design capacity of the system.[a]

27. A minimum of two feet of freeboard shall be maintained in all leachate containment ponds.[a]

28. If adequate soil cover material is not accessible during inclement weather, such material shall be stockpiled during favorable weather to ensure year-round compliance.[a]

29. All liquid wastes discharged to the land treatment area shall be tilled into the ground prior to any storm that produces runoff.

Design Criteria

30. All Landfill unit(s), containment structures and drainage facilities shall be designed and constructed under the direct supervision of a California registered civil engineer or a certified engineering geologist, and shall be certified by that individual as meeting the prescriptive standards and performance goals of all State and Federal landfill regulations including, but not limited to Chapter 15 and 40 CFR Parts 257 and 258, prior to waste discharge. Drainage ditches crossing over refuse-filled areas shall be lined with material which provides an effective field permeability of 1.0×10^{-6} cm/sec or less. If material other than clay or synthetic is used, data must be provided to, and approved by, the Executive Officer. The drainage facilities shall be designed and constructed to accommodate anticipated precipitation and peak surface runoff flows from a 100-year, 24-hour event.[a,c]

31. All Landfill facilities shall be designed and constructed to ensure the integrity of the final slopes under both static and dynamic conditions considering seismic acceleration and to minimize damage during the "maximum probable earthquake" to the graded foundation and to structures which control leachate, surface drainage, erosion, and gas. The slope of those portions of the fill which will be the final exterior surface shall be developed in accordance with all applicable State and Federal requirements, including Chapter 15, Subsection 2581, namely;[a]

    a. all slopes shall have a minimum of one 15-foot wide bench for every 50 feet of vertical height.

    b. slopes shall not be steeper than a horizontal to vertical ratio of 1.75:1 (57%).

    c. slopes steeper than a horizontal to vertical ratio of 3:1 (33%) shall be supported by a slope stability analysis report approved by the Executive Officer.

    d. slopes with grades less than 3% require Executive Officer approval.

    The Discharger must demonstrate that all containment structures, including liners, leachate collection and removal systems, and surface water control systems are designed to resist the maximum horizontal acceleration in lithified earth material for the site. The Discharger must place the demonstration in the operating record and notify the Executive Officer that it has been placed in the operating record.

32. All Landfill units, containment structures, and drainage facilities shall be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, overtopping, and damage due to natural disasters (e.g., floods with a predicted frequency of once in 100 years, the maximum probable earthquake, and severe wind storms).[a]

33. Wastes shall not be discharged to areas outside the footprint area which had not received waste as of **April 9, 1994**, unless the discharge is to an area equipped with a containment system, which meets either **a.** or **b.** below:

    a. a composite liner and a leachate collection and removal system. The liner, at a minimum, must consist of two components:

        i. **Lower Component**: a minimum two-foot layer of compacted soil with a hydraulic conductivity of no more than $1X10^{-7}$ cm/sec (0.1 feet/year); and

        ii. **Upper Component**: a minimum 40-mil flexible membrane liner (FML) or a minimum 60-mil high density polyethylene (HDPE). The upper component must be installed in direct and uniform contact with the lower component; or

    b. an engineered alternative design. Engineered alternative designs must satisfy the performance criteria in 40 CFR, Section 258.40(a)(1) and (c), and satisfy the criteria for an engineered alternative to the above Prescriptive Design, as provided by Title 23, CCR, Section 2510 (b), where the performance of the alternative composite liners' components, in combination, equal or exceed the waste containment capability of the Prescriptive Design.[c]

34. Leachate collection and removal systems shall be installed immediately above the liner and shall be designed, constructed, maintained, and operated to:[a,c]

    a. collect and remove twice the maximum anticipated daily volume of leachate from the Landfill unit(s);

    b. prevent the development of greater than one-foot of hydraulic head on the liner;

c. convey to a sump, or other appropriate collection area, all leachate which reaches the liner. The depth of fluid in any collection sump shall be kept at the minimum needed to ensure efficient pump operation; and

d. function without clogging through the scheduled closure of the Landfill unit(s) and during the post-closure maintenance period.

35. The Discharger shall operate a test plot for six months to demonstrate, to the Executive Officer's satisfaction, the land treatment area is designed, constructed, and monitored to ensure discharged liquid wastes can be completely degraded, transformed, and immobilized within a maximum 5-foot treatment zone.

36. The land treatment area must satisfy all other applicable Chapter 15 requirements including precipitation and drainage controls, and unsaturated zone monitoring and response provisions for land treatment units.

37. The Discharger shall establish a detection ground water monitoring program which includes:

a. a sufficient number of monitoring points installed at appropriate locations and depths to yield ground water samples from the uppermost aquifer that represent the quality of ground water passing the point of compliance and to allow for the detection of a release from the Landfill unit(s);

b. a sufficient number of monitoring points installed at additional locations and depths to yield ground water samples from the uppermost aquifer to provide the best assurance of the earliest possible detection of a release from the Landfill unit(s);

c. a sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield ground water samples from portions of the zone of saturation, including other aquifers, not monitored pursuant to (a) or (b), above, to provide the best assurance of the earliest possible detection of a release from the Landfill unit(s);

d. a sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield ground water samples from zones of perched water to provide the best assurance of the earliest possible detection of a release from the Landfill unit(s); and

e. monitoring point locations and depths that include the zone(s) of highest hydraulic conductivity in each ground water body monitored.

Closure

38. Once Modules 1-4 are at final elevation, 565 feet above mean sea level, they shall all be covered with a final cover pursuant to Chapter 15 and Subtitle D final cover requirements, including from bottom to top:[a]

a. at least a two foot foundation layer placed over waste;

b. i. for Landfill units which have <u>not</u> been equipped with a Subtitle D composite liner system, a low permeability geomembrane or a one-foot minimum thickness compacted clay layer with an in-place permeability no faster than $1x10^{-6}$ cm/sec, or no faster than the permeability of underlying natural geologic materials, which ever is less; or

ii. for Landfill units which have been equipped with a Subtitle D composite liner system, an 18-inch minimum thickness compacted clay layer with an in-place permeability no faster than $1x10^{-6}$ cm/sec or no faster than the permeability of the underlying Subtitle D composite liner system, whichever is less; and

c. at least one foot of soil capable of supporting vegetation, resisting erosion, and protecting the underlying low permeability layer.

The final cover shall be graded to a slope of at least 3%, but not more than 10% unless adequate erosion control measures are implemented and approved by the Executive Officer.

39. Permeability determinations shall be as specified in Article 4 of Chapter 15. Permeabilities specified for containment structures other than cover shall be relative to the fluids, including waste and leachate, to be contained. Permeabilities specified for cover shall be relative to water. Permeabilities shall be determined primarily by appropriate field test methods in accordance with civil engineering practice (sealed double ring infiltrometer test is required). The results of laboratory tests with both water and leachate, and field tests with water, shall be compared to evaluate how the field permeabilities will be affected by leachate. Appropriate compaction tests may be used in conjunction with laboratory permeability tests to determine field permeabilities as long as a reasonable number of field permeability tests are also conducted. Construction methods and quality assurance procedures shall be submitted for Regional Board review, and shall insure all parts of the low-permeability layer meet the hydraulic conductivity and compaction requirements.[a]

40. All Landfill unit(s) which remain inactive over one-year, must be provided with an Executive Officer approved long-term intermediate cover. Cover designs shall minimize percolation from precipitation and surface water flows. The thickness and permeability of the long-term intermediate cover shall be based primarily on site specific conditions including, but not limited to length of exposure time; existence of a liner system, volume of underlying material, permeability of underlying material and liner system, thickness and composition of existing cover; amount of yearly rainfall; depth to ground water; beneficial uses of underlying ground water; site specific geologic and hydrogeologic conditions; and effectiveness of existing monitoring system.

41. The Discharger shall implement final closure activities (e.g., within 30 days after the entire landfill (Modules 1-4) reach final fill elevation, final closure activities, consistent with an approved closure schedule, must be initiated), in accordance with the most recently approved closure plan.[a]

42. All closed Landfill unit(s) shall be provided with at least two permanent monuments, installed by a licensed land surveyor, from which the location and elevation of all wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period. Cumulative waste subsidence and settlement of areas where final cover is installed, shall be documented and reported annually.[a]

43. Partial closure shall be accomplished by implementing closure activities, including but not limited to: placement of final cover, final grading, maintenance, re-vegetation, and installation of environmental monitoring control systems consistent with the closure of the entire site. Landfill unit(s) closed in accordance with a Closure Plan approved by the Executive Officer are not subject to future regulatory changes, unless monitoring data indicate impairment of State waters' beneficial uses.[a]

44. Alternative intermediate and final cover designs may be considered for Executive Officer approval, if such designs provide equivalent reduction in infiltration and protection from wind and water erosion.[a]

45. All liquid waste land treatment areas shall be closed pursuant to applicable Article 8 of Chapter 15 requirements (closure regulations).

46. Landfill gases shall be adequately vented, removed from the Landfill, or otherwise controlled, as required, to prevent the danger of explosion, adverse health effects, nuisance conditions, or the impairment of State waters' beneficial uses due to migration through the vadose (unsaturated) zone.[a]

Reporting

47. Discharger shall notify Board staff, within 24 hours by telephone and within seven days in writing, of any noncompliance potentially or actually endangering health or the environment. Any noncompliance which threatens the Landfill's containment integrity shall be promptly corrected. Correction schedules are subject to the approval of the Executive Officer, except when delays will threaten the environment and/or the Landfill's integrity (i.e., emergency corrective measures). Corrections initiated prior to Executive Officer approval shall be so stated in the written report. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times or anticipated duration; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. This provision includes, but is not limited to:

    a. violation of a discharge prohibition;

    b. violation of any treatment system's discharge limitation;

    c. slope failure; and

    d. leachate seep occurring on or in proximity to the Landfill.[a]

48. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule, shall be submitted within 14 days following each scheduled date unless otherwise specified within the Order. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of achieving full compliance.

49. Reports shall be submitted in advance of any planned changes in the permitted facility or in an activity which could potentially or actually result in noncompliance.

50. Additional reporting requirements are contained in the current monitoring and Reporting Program.

C. WATER QUALITY PROTECTION STANDARDS

1. Water Quality Protection Standard (WQPS). The five parts of the WQPS are as follows:

    a. Constituents of Concern. The list of Constituents of Concern for water-bearing media (i.e., ground water, surface water, and soil pore liquid) and soil pore gas, include those described in **Part I**, of the attached **MRP NO. 95-13.**

    b. Concentration Limits. For each Monitoring Point assigned to the Detection Monitoring Program (**MRP Part I.E.1**), the Concentration Limit for each Constituent of Concern (or Monitoring Parameter) shall be its background value as obtained during that Monitoring Period (**defined in MRP Part V.G**), as described in **Parts II.B and C** of the attached **MRP No. 95-13**.

    c. Monitoring Points and Background Monitoring Points for Detection Monitoring shall be those listed in **MRP Part I.E** and shown on **Attachment B**.

    d. Point of Compliance. Point of Compliance means a vertical surface located at the hydraulically downgradient limit of the Landfill unit(s) that extends through the uppermost aquifer underlying the unit(s).

    e. Compliance Period. The Compliance Period is the number of years equal to the active life of the Landfill (including any Landfill unit(s) activity prior to the adoption of the waste discharge requirements) plus the closure period. The Compliance Period is the minimum period of time during which the Discharger shall conduct a water quality monitoring program subsequent to a release. This landfill has operated as a landfill since 1976, and the closure period is expected to take approximately one year. Therefore, the estimated duration of the Compliance Period

for this Landfill is **29 years**. Each time the Standard is broken (i.e., a release is discovered), the Landfill begins a Compliance Period on the date the Board directs the Discharger to begin an Evaluation Monitoring Program. If the Discharger's Corrective Action Program (CAP) has not achieved compliance with the Standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the Landfill has been in continuous compliance for at least three consecutive years.

2. **Monitoring Parameters for Detection Monitoring**.

   a. The Detection Monitoring Parameters are listed in **MRP, Part I.E.**

   b. The Detection Monitoring Parameters for soil pore gas samples; and VOC_{spg}, a composite parameter that encompasses a variety of gaseous-phase VOCs include those listed in **MRP Part I.E.**

3. **Additional Monitoring Points or Background Monitoring Points.** By **November 15, 1995**, the Discharger shall, install any additional ground water, soil pore liquid, soil pore gas, or leachate monitoring devices required to fulfill the terms of the Order.

4. **Additional Requirements**

   a. The concentrations of indicator parameters or waste constituents in water passing through the "Detection" Points of Compliance shall not exceed the "concentration limits" established pursuant to Monitoring and Reporting Program No. 95-13, which is attached and made part of this Order.

   b. Discharge of waste shall not cause a "statistically significant" increase over the concentration limits of any of the constituents of concern or monitoring parameters listed in **Appendix I and II of Subtitle D.**

   c. Discharge of waste shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board.

   d. Discharge of waste shall not cause concentrations of chemicals and radionuclides in underlying and downgradient ground water to exceed limits set forth in Title 22, Chapter 15, Articles 4 and 5 of the code.

   e. Discharge of waste shall not adversely impact the quality of water in any aquifer.

   f. Discharge of waste shall not cause ground water in downgradient wells to exceed the State Department of Health Services latest recommended Drinking Water Action Levels or Maximum Contaminant Levels.

D. PROVISIONS

General Provisions

1. Order No. 87-152 "Waste Discharge Requirements for Monterey County of Department of Public Works and King City Disposal Service, Jolon Road Solid Waste Disposal Site, Monterey County," adopted by the Board on December 4, 1987, is hereby rescinded.

2. The Discharger shall comply with "Monitoring and Reporting Program No. 95-13", as specified by the Executive Officer.

3. The Discharger shall maintain a copy of this Order at the facility and make it available at all times to regulatory agency personnel and to facility operating personnel, who shall be familiar with its contents.

4. The Discharger shall comply with all other applicable provisions of Chapter 15, Subtitle D and other State and Federal landfill regulations that are not specifically referred to in this Order. If any applicable regulation requirements overlap or conflict in any manner, the most restrictive requirement shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.

5. The Discharger shall maintain legible records of the volume and type of each waste discharged at each Landfill unit (including the land treatment unit) and the manner and location of discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Executive Officer.[a]

6. The Discharger shall report all changes in usage of daily cover and performance standards within 10 days following the change.

7. The Discharger shall be responsible for accurate waste characterization, including determinations of whether or not wastes will be compatible with containment features or other wastes and whether or not wastes are required to be managed as hazardous wastes.[a]

8. The Discharger shall have a continuing responsibility to assure protection of usable waters, from discharged wastes and from gases and leachate generated by discharged waste, during the Landfills active life, closure, and post-closure maintenance periods and during subsequent use of the property for other purposes.

9. The Board considers the Discharger to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge.

10. At any time, the Discharger may file a written request (including appropriate supporting documents) with the Regional Board Executive Officer, proposing appropriate modifications to the Monitoring and Reporting Program. The request may address changes (a) to any statistical method, non-statistical method, or retest method used with a given constituent or parameter, (b) to the manner of determining the background value for a constituent or parameter, (c) to the method for displaying annual data plots, (d) to the laboratory analytical method used to test for a given constituent or parameter. (e) to the media being monitored [e.g., the addition of soil pore gas to the media being monitored], (f) to the number or placement of Monitoring Points or Background Monitoring Points for a given monitored medium, or (g) to any aspect of monitoring or QA/QC. After receiving and analyzing such a report, the Executive officer either shall reject the proposal for reasons listed, or shall incorporate it, along with any necessary changes, into the attached Monitoring and Reporting Program. The Discharger shall implement any changes in the Monitoring and Reporting Program proposed by the Board's Executive Officer upon receipt of a revised Monitoring and Reporting Program.

11. If the Discharger or the Executive Officer determines, pursuant to Section 2550.8(g) or (i), that there is evidence of a release or a new release from any portion of the Landfill, the Discharger shall immediately implement the procedures outlined in **MRP, Part IV.**[a]

12. If the Discharger determines pursuant to Section 2550.11(n) of Chapter 15, that there has been a statistical significant increase in the value of a hazardous constituent below the five (5)-foot treatment zone, the Discharger shall:

    a. report to the Executive Officer describing the full extent of the Discharger's findings, including the identification of all constituents that have shown a statistically significant increase, within 72 hours of making such a determination;

b. submit written notification of this finding to the Regional Board within seven days of making such a determination;

c. cease operating and not resume operating the land treatment unit and shall close the land treatment unit unless one of the following actions is taken:

i. the Discharger completes appropriate removal or remedial actions to the satisfaction of the Executive Officer and the Discharger submits to the Executive Officer and the Executive Officer approves, an amended report of waste discharge to modify the operating practices at the unit to maximize the success of degradation, immobilization, or transformation precesses in the treatment zone; or

ii. the Discharger completes appropriate removal or remedial actions, submits to the Executive Officer and the Executive Officer approves, an amended report of waste discharge to modify the operating practices at the unit to maximize the success of degradation, immobilization, or transformation processes in the treatment zone, and equips the land treatment unit with liners, and a leachate collection and removal system that satisfy the provisions of Chapter 15, Article 4, Sections 2542 and 2543.

13. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Department of Water Resources with regard to the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with Monitoring and Reporting Program No. 95-13, as required by Sections 13750 through 13755 of the California Water Code.[d]

14. All reports shall be signed as follows:

a. for a corporation; by a principal executive officer of at least the level of vice president*;

b. for a partnership or sole proprietorship; by a general partner or the proprietor, respectively*;

c. for a public agency; by either a principal executive officer or ranking elected official*; and,

d. engineering reports; by a California Registered Civil Engineer or Certified Engineering Geologist.

* **or their "duly authorized representative."**

15. Any person signing a report makes the following certification, whether its expressed or implied:

"I certify under penalty of perjury I have personally examined and am familiar with the information submitted in this document and all attachments and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

16. Except for data determined to be confidential under Section 13267 (b) of the California Water Code, all reports prepared in accordance with this Order shall be available for public inspection at the Regional Board office.[d]

17. The Discharger shall notify the Executive Officer in writing of any proposed change in ownership or responsibility for construction or operation of the facility. This notification shall be given at least 90 days prior to the effective date of the change and shall be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with this Order. In the event of any change in ownership of this waste management facility, the Discharger shall notify

the succeeding owner or operator, in writing, of the existence of this Order. A copy of that notification shall be sent to the Executive Officer. Notification to the Board shall also comply with Section 2590(c) of Chapter 15.[a]

18. To assume operation pursuant to this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Board, and a statement indicating that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a violation of Section 13264 of the Water Code (discharge without waste discharge requirements). Transfer may be approved or disapproved in writing by the Executive Officer.[d]

19. The Discharger shall develop a long-term intermediate cover design for Modules 1 and 2. The proposed design, including a reasonable schedule shall be submitted for Executive Officer approval by **August 15, 1995**. Design approval will be based on site specific factors as described in **Discharge Specification B.40.**

20. The Discharger shall submit a "Wet Weather Preparedness Plan" which addresses, in detail, compliance with all wet weather preparedness related specifications (i.e., **Discharge Specifications B.19 - B.29**) of this Order, and all other relevant Chapter 15 and Subtitle D criteria. The Plan shall discuss and justify any deviation from wet weather preparedness specifications, including implementation deadlines. The Plan shall be submitted for Executive Officer approval by **September 1st of each year.**

21. The Discharger shall maintain a program for periodic intake load-checking. The load checking program shall be adequately designed to ensure that "hazardous wastes" and "unauthorized designated wastes" are not discharged to any Landfill unit(s), including the land treatment unit. The load checking program shall be submitted to the Executive Officer for approval by **April 15, 1995**. The program shall include, but not be limited to:[a]

    a. number of random loads (solid and liquid wastes) to be checked per month and/or year;

    b. training program for on-site personnel;

    c. record keeping and reporting program;

    d. program implementation schedule;

    e. alternatives for waste found to not be in compliance with this Order; and

    f. example of signs posted at the facility.

22. Hazardous waste warning signs that adequately inform and warn users of hazardous waste restrictions shall be posted on a legible roadway sign at the entrance in both English and Spanish. The signs shall also list penalties for illegal dumping. A specific list of Hazardous Wastes and other types of materials prohibited at the Landfill shall be provided to commercial waste haulers that use this facility and shall be available to all other users upon request.

23. The Discharger shall submit to the Regional Board, for Executive Officer approval, an updated closure and post-closure maintenance plan (Closure Plan) by **April 15, 1995**. The Closure Plan shall describe the methods and controls to be used to assure protection of the quality of surface and ground waters of the area during partial and final closure operations and during any proposed subsequent use of the land. The Closure Plan shall include, but are not limited to:

a. a description of the final cover, designed in accordance with all applicable State and Federal regulations and the methods and procedures to be used to install the cover;

b. an estimate of the largest Landfill area ever requiring a final cover at any time during the active life;

c. an estimate of the maximum inventory of wastes ever on-site over the Landfill facility's' active life;

d. a schedule for completing all activities necessary to satisfy all closure criteria as required by Chapter 15 and Subtitle D regulations;

e. an estimate of closure and post closure maintenance costs;

f. a proposal for a trust fund or equivalent financial arrangement to provide sufficient funding for closure and post-closure maintenance; and

g. the amount to be deposited in the trust fund or equivalent financial arrangement each year.

The Closure Plan shall be prepared by or under the supervision of a California registered civil engineer or certified engineering geologist. Closure Plan updates are required whenever substantial changes occur or five years has elapsed since the last major revision. The method, identified for each Landfill units' closure and protection of the quality of surface and ground waters, shall comply with an Order established by the Board. The Closure Plan report shall be consistent with all applicable State and Federal regulations, including Chapter 15 and Subtitle D.[a,c]

24. The Discharger shall notify the Board at least 180 days prior to beginning any partial or final Landfill closure activities. The notice shall include a statement that all closure activities will conform to the most recently approved Closure Plan and that the Plan provides for closure in compliance with all applicable State and Federal regulations. If there is no approved Closure Plan, the Discharger must submit a complete Closure Plan at least 240 days prior to beginning any Landfill closure activities.[a,b]

25. The Executive Officer may require partial and/or final closure of any Landfill unit(s), regardless of whether such Landfill unit(s) has reached final capacity laterally and/or vertically for the protection of water quality. Such a requirement will be requested in writing.[a]

26. Within 60 days after completing final closure of all Landfill units,

    a. the owner or operator must record a notation on the deed to the Landfill facility property, or some other instrument that is normally examined during title search, and notify the Executive Officer that the notation has been recorded and a copy has been placed in the operating record.

    b. the notation on the deed must, in perpetuity, notify any potential purchaser of the property that:

        i. the land has been used as a landfill facility;

        ii. its use is restricted pursuant to Subtitle D, Section 258.60(i)(2)(ii); and

        iii. should the Discharger default in post-closure care, liability shifts to the new owner/operator.[a,c]

27. The Discharger shall maintain waste containment facilities and precipitation and drainage controls, and shall continue to monitor, as appropriate, ground water, leachate from the Landfill unit(s), the vadose zone, and surface waters per the current version of the MRP throughout the post-closure maintenance period.[a]

28. The post-closure maintenance period shall continue until the Regional Board determines that remaining wastes in the Landfill will not threaten water quality.[a]

29. Discharger shall notify the Regional Board within 24 hours by telephone and within seven days in writing of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.

30. Vertical expansions (i.e., refuse placement above currently permitted final fill elevations (for this site, 565 feet above MSL) will not be permitted, **unless** the Discharger submits and the Executive Officer approves, a proposal demonstrating that additional refuse placed on top of existing unlined Landfill unit(s) does not significantly increase the threat to water quality. The proposal shall adequately address:

    a. all siting criteria and engineering properties of underlying refuse;

    b. differential settlement, including the ability of the underlying waste to support the additional refuse and all effects of the additional refuse upon the underlying refuse.

    All proposal conclusions shall consider site specific conditions, including subsurface hydrogeologic factors, existing threat to water quality, any existing State waters' degradation as a result of waste discharges, beneficial uses of underlying and adjacent waters, existing and proposed final fill elevations, financial feasibility, and any other relevant factors.

31. The Discharger shall submit a complete liner system design report for Executive Officer consideration of any new Landfill unit(s) use and construction (i.e., Module 3, remaining portions of Module 4), at least 180 days prior to Landfill unit(s) development. The design report shall adequately address any proposed deviation from the most currently approved fill sequencing plan. It must adequately address **all** applicable requirements of State (Chapter 15) and Federal (Subtitle D) landfill regulations.[a]

32. Pursuant to the California Code of Regulations, Title 23, Chapter 15, Article 9, the Discharger must submit a technical report to the Executive Officer, no later than **August 15, 1999** which:

    a. discusses whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision;

    b. discusses whether there has been or will be changes in site development and waste management practices (solid and liquid) including, but not limited to, the continuity, character, location, and volume of all discharges;

    c. discusses any proposed expansions (lateral and/or vertical expansions within and/or outside currently permitted Landfill boundaries) or closure plans, including detailed information of the quality and quantity of waste discharged and the anticipated impact upon water quality and Landfill operations;

    d. addresses all other applicable sections of Article 9, Chapter 15 (e.g., update of the Landfill's Development and Operations Plan, etc.,); and

    e. includes any other technical documents needed to demonstrate continued compliance with this Order and all pertinent State and Federal requirements.[a]

33. The Discharger shall submit an updated/revised version of its Master Plan by **April 15, 1996**. The Master Plan must include detailed information regarding regulatory considerations; site characteristics, design, load checking, wet weather preparedness, liquid mass balance analysis, land treatment area operations, financial assurance, construction and operating provisions; environmental monitoring; and closure and postclosure. Additionally, the Master Plan shall:[a]

    a. include a Fill Sequencing Plan, including detailed maps. The Fill Sequencing Plan should describe, in detail, the overall development of the entire Landfill .

b. include a detailed description of the lateral and vertical extent of solid and liquid wastes within all existing Landfill and land treatment unit(s). It must include an accurate estimate of solid and liquid waste volumes within each existing Landfill unit and an approximation of the remaining volume and years of capacity for each existing unit and all new proposed units within currently permitted Landfill boundaries. It must also describe all existing available space within currently permitted Landfill areas (i.e., modules where refuse has been placed in the past, but have not reached final permitted elevation and Landfill units or portions of units where refuse has never been placed).

c. discuss any plans/proposals to close or partially close any Landfill unit(s) (modules) or portions of modules, any proposed liner systems and respective design components, any proposed plans for long-term intermediate cover for Landfill areas which may remain inactive for long periods of time.

34. The County of Monterey shall appropriate (e.g., by adoption of a Resolution) $1,987,760.00 to a restricted reserve in a Financial Assurance Instrument (Instrument) to cover the estimated Article 5 costs to initiate and complete corrective action of the "worse case" reasonably foreseeable release. The total appropriated amount is provided in the "Amendment to Report of Waste Discharge Board Order No. 87-152" by Woodward-Clyde Consultants (Nov. 17, 1992). The total capital cost for pre-design investigations and installation of the ground water extraction and treatment system is estimated to be approximately $1,081,131.00. The annual cost for operation and maintenance is estimated to be approximately $273,741.00 with a present worth for four years of operation of approximately 1,982,800.00. The Discharger shall submit a report every five years that either validates the Instrument's ongoing viability or proposes and substantiates any needed changes. The report is due by **April 9, 1995 and every five years thereafter.**[a,c]

35. By **April 9, 1995**, the Discharger shall submit a signed original Financial Assurance Instrument for corrective actions as outlined in **Provision D.34**, above, for Executive Officer review and approval.

36. The Discharger shall submit a revised monitoring program which adequately addresses compliance with revised Article 5 ground water monitoring program requirements. The revised program must propose a sufficient number of additional downgradient ground water monitoring points to satisfy all applicable Chapter 15 and Subtitle D detection monitoring requirements. All proposed monitoring point locations and depths shall meet criteria outlined in **Specification B.37** of this Order. The revised program shall include a reasonable implementation schedule and be submitted for Executive Officer approval by **October 15, 1995.**

37. The Discharger shall:

    a. propose for installation, an unsaturated zone monitoring system consisting of a sufficient number of soil and soil-pore liquid monitoring points at appropriate locations and depths to yield samples that indicate the quality of soil-pore liquid and the chemical makeup of the soil below the treatment zone of the LWLT unit area. The proposed monitoring system shall include consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality and the chemical makeup of the soil below the treatment zone. At a minimum, the Discharger shall implement the approved procedures and techniques for:

        i. sample collection;

        ii. sample preservation and shipment;

        iii. analytical procedures; and

        iv. chain of custody control.

Additionally, the proposed monitoring system shall include an adequate characterization of all liquid wastes discharged. The proposed unsaturated zone monitoring system shall: (1) be submitted for Executive Officer approval by **October 15, 1995**, and (2) shall be completely installed and monitoring shall commence by **November 15, 1995**;

b. operate a test plot in the land treatment area (Attachment B), to demonstrate the feasibility of utilizing this area as a land treatment facility. The liquid waste land treatment facility shall be designed, operated, and monitored in accordance with all applicable Chapter 15 regulations. The limited land treatment operations shall only include grease trap pumpings and small quantities of other similar nonhazardous liquid wastes;

c. submit a Feasibility Report demonstrating to the Executive Officer that the liquid waste land treatment area can be operated in compliance with all applicable Chapter 15 regulations on a long-term basis. The report shall determine, by monitoring analysis' results, if degradation, transformation, or immobilization can and will take place in the treatment zone. The Feasibility Report shall be submitted by **June 15, 1996**.

38. Prior to **October 1st** of every year, the Discharger shall adequately address, in writing, compliance with all terms of this Order. Compliance shall be specifically confirmed for all wet weather related specifications, water quality protection standards, and all provisions having report submittal deadlines.

39. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267 of the California Water Code, or falsifying any information provided therein, is guilty of a misdemeanor.[d]

40. The discharger and/or any person who violates this Order and/or who intentionally or negligently discharges waste, causes or permits waste to be deposited where it is discharged to waters of the state, may be liable for civil and/or criminal remedies, as appropriate, pursuant to the California Water Code.[c]

41. The Board will review this Order periodically and may revise its requirements when necessary.

42. The Discharger shall comply with the following submittal and implementation schedule for all tasks and/or reports required by this Order:

REPORT AND IMPLEMENTATION DATE SUMMARY

TASK	IMPLEMENTATION DATE
Runoff diversion and erosion prevention [Specification No. B.19]	October 1, of each year
Minimum One foot cover over entire active WMU [Specification No.B.20]	October 1, of each year
Vegetation placement over entire Landfill area [Specification No.B.21]	October 1, of each year
Implementation of Unsaturated Zone Monitoring System (land treatment unit) [Provision No. D.37.a]	November 15, 1995
REPORT	**DUE DATE**
Installation of additional monitoring devices [WQPS.C.3.]	November 15, 1995
Long-Term Intermediate Cover Design Report For Modules 1 and 2 [Provision No.D.19]	August 15, 1995
Wet Weather Preparedness Report [Provision No.D.20]	September 1, of each year
Load Checking Program [Provision No.D.21]	April 15, 1995
Updated Closure Plan [Provision No.D.23]	April 15, 1995
Proposed Unsaturated Zone Monitoring System (land treatment unit) [Provision No.D.37.a.]	October 15, 1995
Feasibility Report (land treatment unit) [Provision No.D.37.c.]	June 15, 1996
Revised Monitoring Program Report [Specification No.D.36]	October 15, 1995
Technical Report [Provision No.D.32]	August 15, 1999
Updated Master Plan [Provision No.D.33]	April 15, 1996
Financial Assurance Viability Report [Provision No.D.34]	April 9, 1995, updates are due every five years thereafter
Financial Assurance Instrument [Provision No.D.35]	April 9, 1995
Compliance Letter [Provision No.D.38]	October 1 of each year, beginning in 1995

I, ROGER W. BRIGGS, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on February 10, 1995.

Roger W. Briggs
Executive Officer

2-15-95
Date